

Claims

1. Hose, comprising a core and a cover having an embedded reinforcement support, specifically in the form of a single-layer or multi-layer reinforcement structure, whereby the core and the cover consist of a thermoplastic elastomer, in each instance, characterized in that an adhesion-imparting intermediate layer is worked in, which can be bonded to the core and/or cover material and therefore enters into a bond with the reinforcement support.
2. Hose according to claim 1, characterized in that the adhesion-imparting intermediate layer is extruded directly onto the core, and the reinforcement support is laid directly onto the intermediate layer.
3. Hose according to claim 1, characterized in that the adhesion-imparting intermediate layer is extruded directly onto the reinforcement support, and the cover is worked on subsequently.
4. Hose according to claim 1, characterized in that the adhesion-imparting intermediate layer is applied to the core and to the cover, so that the reinforcement support is completely bonded into the intermediate layer.
5. Hose according to one of claims 1 to 4, characterized in that in the case of multi-layer hoses, the adhesion-imparting intermediate layer is applied between the individual reinforcement supports.

6. Hose according to one of claims 1 to 5, characterized in that the adhesion-imparting intermediate layer has a minimal melting point of 75°C.
7. Hose according to one of claims 1 to 6, characterized in that the adhesion-imparting intermediate layer has a maximal melting point of 170°C.
8. Hose according to one of claims 1 to 7, characterized in that the adhesion-imparting intermediate layer is an olefin plastic.
9. Hose according to claim 8, characterized in that the olefin plastic is polyethylene or polypropylene.
10. Hose according to claim 8 or 9, characterized in that the reinforcement support is surrounded with twisted yarns of the olefin plastic.
11. Hose according to claim 8 or 9, characterized in that the olefin plastic is applied directly to the reinforcement support.
12. Hose according to one of claims 1 to 7, characterized in that the adhesion-imparting intermediate layer consists of a thermoplastic elastomer and a hydrocarbon resin, particularly an aromatic hydrocarbon resin, as well as other additives, if necessary.

13. Hose according to claim 12, characterized in that the thermoplastic elastomer comes from the group TPE-S, TPE-O, or TPE-V.
14. Hose according to claim 12 or 13, characterized in that the hydrocarbon resin component amounts to 2 to 50 wt.-%, particularly 5 to 30 wt.-%.
15. Hose according to one of claims 1 to 7, characterized in that the adhesion-imparting intermediate layer is an acrylate copolymer.
16. Hose according to claim 15, characterized in that the adhesion-imparting intermediate layer is an ethylene/acrylate copolymer.
17. Hose according to claim 16, characterized in that the adhesion-imparting intermediate layer is a copolymer on the basis of ethylene methyl acrylate (EMA), ethylene ethyl acrylate (EEA), or ethylene butyl acrylate (EBA).
18. Hose according to one of claims 15 to 17, characterized in that a hydrocarbon resin, particularly an aromatic hydrocarbon resin, as well as other additives, if necessary, is/are mixed into the acrylate copolymer.

19. Hose according to claim 18, characterized in that the hydrocarbon resin component amounts to 2 to 50 wt.-%, particularly 5 to 30 wt.-%.
20. Hose according to one of claims 12 to 19, characterized in that another component in the form of a functionalized polymer is added to the adhesion-imparting intermediate layer.
21. Hose according to claim 20, characterized in that the functionalized polymer is a malein anhydride graft polyethylene or malein anhydride graft polypropylene, or an acrylate copolymer functionalized with polar CO groups or epoxy groups.
22. Hose according to claim 20 or 21, characterized in that the proportion of the functionalized polymer is 0.5 to 20 wt.-%, particularly 2 to 10 wt.-%.
23. Hose according to one of claims 1 to 7, characterized in that the adhesion-imparting intermediate layer is a hydrocarbon resin, particularly an aromatic hydrocarbon resin.
24. Hose according to claim 23, characterized in that the hydrocarbon resin has a plastification point of 75°C to 145°C, particularly 100°C to 145°C.